



METHODOLOGICAL ANALYSIS OF PROVIDING THE INTEGRATION OF SCIENCES IN THE FIELD OF SEWING

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<https://www.doi.org/10.5281/zenodo.7748813>

ARTICLE INFO

Received: 06th March 2023

Accepted: 17th March 2023

Online: 18th March 2023

KEY WORDS

Science, integration,
educational process,
educational integration,
scientific research, effectiveness
of educational process,
integration of subjects.

ABSTRACT

In this article, the principles, methods and means of ensuring the integration of general and specialized subjects in the field of tailoring, the principles, methods and means of ensuring the integration of education, the organization of the educational process based on the methodology based on the integration of subjects, the essence, theory and practice of interdisciplinary integration, the main didactic functions, the factors affecting the basis of the integration of subjects are discussed in this article.

World pedagogic scientists and practitioners are conducting research on the development of scientifically based advanced educational technologies and information technologies and their introduction into the educational process, improvement of normative documents, and improvement of the quality of education.

Based on the needs of the social sphere and economic sectors, improving the quality of education, training competitive personnel, effective organization of scientific and innovative activities, development of international cooperation, innovative activities in education, research attention is being paid to scientific research related to the wide introduction of results into practice, the commercialization of scientific developments, and the attraction of talented young people to scientific and research work.

The need to create conditions for the training of specialists with professional skills and high qualifications, to organize the educational process based on the methodology based on the integration of disciplines, and to scientifically substantiate the formation and development in accordance with socio-economic conditions, as well as the need to develop a methodological system determines the relevance of the research.

Based on the analysis of the research works of foreign and our republican scientists, the methodical system of training highly qualified specialists, the essence, theory and practice of interdisciplinary integration, the main didactic functions and principles were explained by

ensuring the integration of disciplines in technical higher education institutions. The importance of interdisciplinary integration in the educational process is not only the versatility of this connection, but also its manifestation and methods of its use.

In particular, the mobile-didactic support of the specialty subject "Technology of sewing, knitting and goldsmithing", which gives students the opportunity to learn general and specialized subjects, has been improved on the basis of scientific and methodological approaches. On the basis of "Mobile-learning", BOYD (Bring your own device - use of a mobile device in education) technologies and the principles of digitization of education, content-improved mobile applications were created, which included informational and didactic materials consisting of short video clips used for lectures and practical training.

Based on the above, we identified the possibilities of using different forms of integration to achieve the effectiveness of the educational process (see Figure 1).

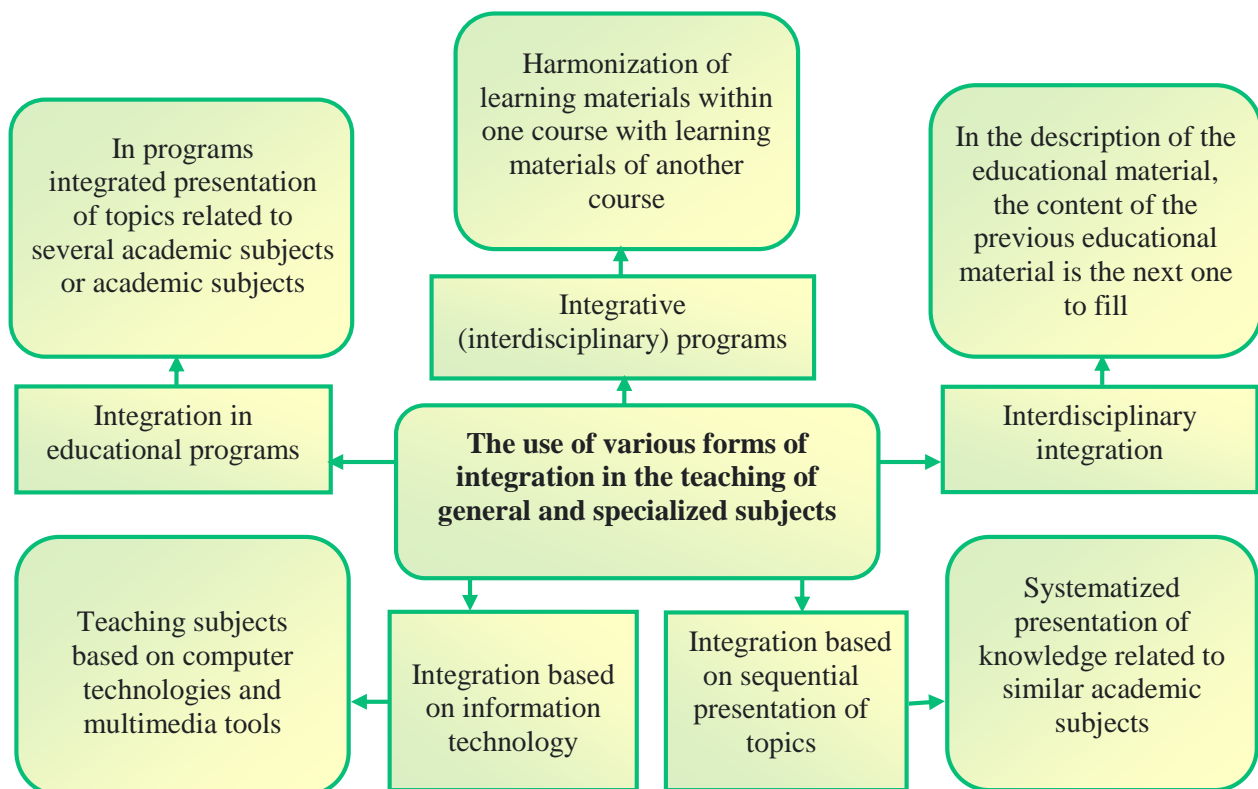


Figure 1. Using different forms of integration in the educational process

Integration of education means not only interdisciplinary connection of knowledge, but also integration of teaching technologies, methods and forms. In our opinion, an integrative approach to education does not mean a one-sided, but a multi-planned, comprehensive approach.

In the methodological essence of the problem of interdisciplinary relations, the educational process is organized in such a way that the use of knowledge, skills and competences acquired in the study of one subject for the study of other subjects takes its place. Therefore, the main issue of interdisciplinary relations is the classification that determines the main streams of their possible relations, that is, the generalization of the content of taught materials, some skills, and scientific methods is understood.



The content of the pedagogical activity based on ensuring the integration of education is revealed in the functions, requirements and rules of the integrative principles. Interdisciplinary integration has shown its practical result in connection with didactic principles of teaching such as coherence, sequence, systematicity, connection and innovation.

Therefore, the integration of the educational system in the process of integrative improvement of educational content is an important principle of modernization of education, on the one hand, it is the principle of ensuring the coherence and sequence of different stages of education, and on the other hand, it is the principle of ensuring the continuity of education intended for multidimensional movement in the educational process.

In the methodological essence of the problem of interdisciplinary relations, the educational process is organized in such a way that the use of knowledge, skills and competences acquired in the study of one subject takes its place for the study of other subject. In technical higher education, there are opportunities to ensure the integration of disciplines, and this process is provided in connection with the principles of integrative organization of the educational process – coherence, systematicity, connection, sequence and innovative principles.

Based on them, science programs are improved, educational literature with new content and educational-methodical sets are created. As a result, integration between subjects, in the content of each subject is ensured. Integrity, quality and creative approach in the content of education is created.

The analysis of ensuring interdisciplinary integration in education shows that there is a need to develop and research a teaching methodology that provides integration between general professional and specialized disciplines in the field of light industry of higher technical educational institutions. From our side, the factors that affect the basis of integration were identified, these are: objective laws of the development of sciences, determining the content of education taking into account the development of science, state educational standards and qualification requirements, educational tasks, synthesis of knowledge, the unity of the educational process and content, curriculum and programs mutual determination, material technical base, pedagogical and information technologies.

The integrative approach between disciplines is based on didactic perception: the teacher introduces the student to the goals and objectives of the studied subject, its connection with other subjects, and the effectiveness of communicative didactic tools (see Figure 2).

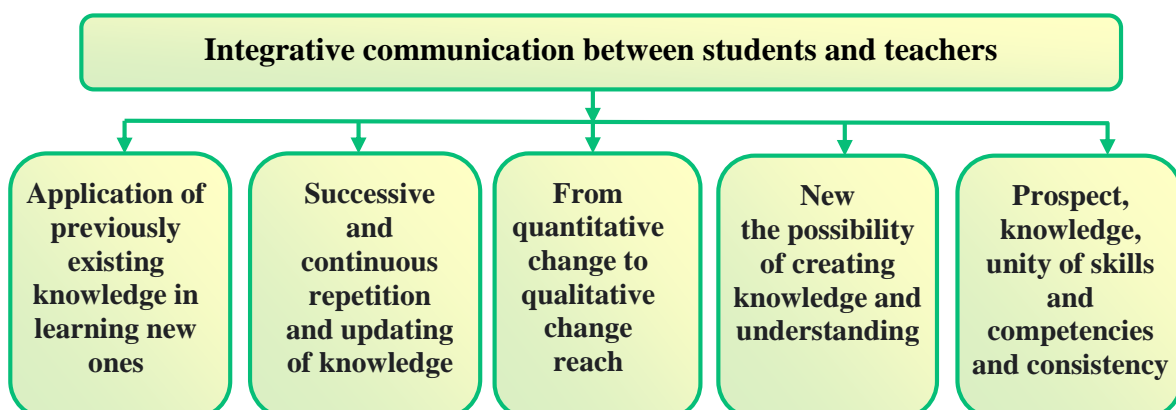




Figure 2. Results of using integrated communication between teachers and students.

As shown by the conducted studies, the integrative educational system of higher education has a significant impact on students' knowledge activity.

The complexity and dynamism of the integration-based educational system creates opportunities for the realization of individual interests, inclinations and professional competences of students, taking into account psychophysical features such as individualization, differentiation and mobility of education.

Content improvement of curricula and subject programs will facilitate effective organization of the educational process, purposeful and correct use of hours allocated to subjects, control and monitoring of the execution of general workloads. On the basis of the integrative principles of education, improvement of the curriculum and science programs, interdisciplinary integration of general professional and specialized sciences was achieved.

Based on the above, educational materials based on integration between disciplines were developed and directly applied to the educational process.

Integration in higher education has been implemented in several directions and at different levels:

internal topic - combining concepts, knowledge, skills, etc., rounding them up within separate educational subjects;

interdisciplinary - synthesis of evidence, concepts, principles, etc., analysis of content of two or more disciplines;

trans-subject - implementation of the synthesis of the components of the main and additional educational content.

Therefore, improvement of the curricula and programs currently used in higher education institutions based on the demands and proposals of employers and based on the existing educational and technical capabilities of the educational institution and the conditions of the labor market in the region will lead to an increase in the quality of professional education. In the improved curriculum, the integration and connection between general and specialized subjects is analyzed, and through this, necessary practical and professional skills are taught in harmony.

The purpose, tasks and opportunities of the integrated educational environment are formed depending on the level of preparation of students and pedagogical conditions. It is known from scientific studies that the problem of interdisciplinary and internal communication in the content of curriculum and programs is solved on the basis of ensuring integration in the content of each subject, integrity, quality and creative approach in the content of education.

In our opinion, the integration of educational subjects leads to efficient use of class time, increased motivation of students and comprehension of knowledge due to the elimination of repetitions in the content of different subjects.

Systematic and organic strengthening of knowledge and skills on a new subject forms students' ability to skillfully use previously acquired knowledge.

Therefore, the integrative reform of the educational system based on the holistic perception of the surrounding world by students is the integration of the educational material, the establishment of interdisciplinary connections and serves as a leading form of



organizing the educational content. As a result of our research, we found that integrative education provides: turning the student's knowledge into skills affects his qualifications and professional practice; creates integration between processes and phenomena, ideas and concepts studied in module topics; knowledge is acquired and applied through interdisciplinary integration, is generalized, improves students' understanding, facilitates and accelerates the reception of information; unit of education and upbringing is provided; applying the principles of integration of general and specialized sciences to the educational process; ensure that educational content, learning materials and key concepts are connected.

In order to ensure the integration of general and specialized subjects in light industry in higher education, the following didactic materials are used: mobile application (book trailer and player), drawings, diagrams, schemes, models or layouts, projects, sketches, mobile applications, etc., using "Mobile-learning", content has been improved based on BOYD (Bring your own device - use of a mobile device in education) technologies and the principles of digitization of education.

It can be concluded that, these demonstrative didactic tools with small video material – book trailers and their mobile applications were positively received as impressive, interesting and new demonstrative didactic material for students.

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